BUTTERFLY DRAWINGS BY JOHN ABBOT IN THE HOUGHTON LIBRARY, HARVARD UNIVERSITY, THAT ARE WRONGLY ATTRIBUTED TO AN "INFERIOR COPYIST"

Additional key words: Coleoptera, Edward Doubleday, Thaddeus W. Harris, Lepidoptera.

On 4 June 1839, the English lepidopterist Edward Doubleday (1810–1849) related an interesting discovery to his good friend, American entomologist Thaddeus W. Harris (1795-1856). Doubleday wrote, "A few days since I found at a Booksellers 84 drawings by Abbot containing 150 figures of Georgian Coleoptera & about 350 of Lepidoptera. They are bound in a small folio volume, & did belong to Swainson. As many of the things figured are new to me I thought that they might not be known to you either, & so gave £7..7..0 for them and brought them away determining to send them as a trifling present to you in my next parcel. I hope they may contain something new to you" (T. W. Harris correspondence, Ernst Mayr Library, MCZ, Harvard University). Doubleday attributed these drawings to the English-born naturalist John Abbot (1751-ca.1840), who had been living in Georgia since 1776. On 15 September 1839, Harris expressed his gratitude for the "costly present of Abbot's drawings" (T. W. Harris correspondence, Mayr Library).

Scudder (1869) transcribed Doubleday's letter, but altered some of the details. He misquoted the letter to say that the drawings "did not belong to Swainson," when the opposite was indicated. The English naturalist William Swainson (1789–1855) received many drawings from John Abbot between 1818 and 1835 (Calhoun 2007). Swainson may have sold this volume prior to his relocation to New Zealand in 1840. He offered various drawings and specimens for sale in 1839 (Parkinson 1984, Natusch & Swainson 1987). Doubleday probably purchased the volume not long after the bookseller had obtained it, possibly from Swainson himself.

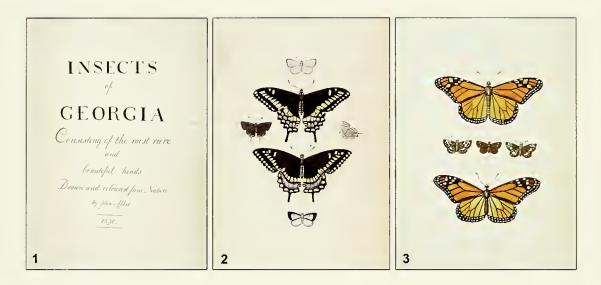
After the death of T. W. Harris in 1856, his library was purchased for the Boston Society of Natural History by John P. Cushing (1786–1862) (Anonymous 1860). Cushing, a philanthropist from Watertown, Massachusetts, also contributed to the purchase of Harris' insect collection for the BSNH. Higginson (1906) recalled that Cushing was "the only man in Boston, or its vicinity, who was suspected of being a millionaire." Cushing amassed a fortune in China and became a "wealthy, benevolent citizen." He established a magnificent conservatory and actively participated in public enterprises and charities (Drake 1880).

When the volume of insect illustrations was received

by the BSNH, it was described as containing "all the originals of the drawings in 'Abbot and Smith's rarer Lepidopterous Insects of Georgia,' beside many others yet unpublished" (Anonymous 1860, Higginson 1869). Various sets of Abbot's drawings have been misidentified as the originals for Smith & Abbot (1797), which are currently deposited in the John Work Garrett Library of the Johns Hopkins University (Calhoun 2006). In 1946, all of Abbot's illustrations in the possession of the BSNH were purchased for \$800 by Harvard University (accession record, Houghton Library, Harvard University). These drawings, including the volume presented to T. W. Harris in 1839, are now preserved in the Houghton Library.

Thirty years after the volume was acquired by the BSNH, Scudder (1888b) denounced its association with Abbot. Kirby (1888) wondered why Scudder (1888a) had overlooked it in his biography of Abbot. In response, Scudder retorted, "The small volume of paintings referred to by Mr. Kirby is in the library of the Boston Society of Natural History, and was not mentioned by me because the less said about it the better. It was picked up at a book shop, bears the date 1830, and though Doubleday paid seven guineas for it, it is certainly not the work of Abbot, but of a very inferior copyist-some of the paintings being the merest daubs. It is scarcely the least value" (Scudder 1888b). Following Scudder, Faxon (1896) ignored this volume when discussing Abbot's insect drawings at the BSNH. Dow (1914) reiterated the opinion of Scudder, considering them to be the work of "a pupil or imitator." Lacking additional information, the Houghton Library continues to catalog the volume as the work of an inferior copyist. However, this notion was proposed when details of Abbot's life and artistic methods were poorly understood. A comparison of this volume with other drawings and manuscripts indicates that it is unquestionably the work of Abbot.

Analysis. I examined these illustrations at the Houghton Library in November 2005. They are bound in a small volume measuring approximately 20×33 cm (8 x 13 in), with mottled brown boards and a brown leather spine that lacks a title. Inside the volume is the bookplate of Edward Doubleday. Placed below this is another bookplate that reads, "Boston Society of Natural History/From the Library of/Thaddeus William



Figs. 1–3. Pages from John Abbot's 1830 insect volume (Department of Printing and Graphic Arts, Houghton Library, Harvard College Library, Harvard University; MS Typ 426.5). 1, title page. 2, drawing no. 29 of *Celastrina neglecta* (W. H. Edwards), *Papilio polyxenes* Fabricius, and *Strymon melinus* (Hübner). 3, drawing no. 32 of *Danaus plexippus* (L.), *Pyrgus communis* (Grote), and *Amblyscirtes vialis* (W. H. Edwards).

Harris, M.D./Presented by J. P. Cushing, Esq." On the first page, handwritten in ink, is a dedication from Doubleday: "To Dr. T. W. Harris (Entomologorum Americanum Princeps), This volume of Drawings by Abbot is presented as a small token of esteem and affectionate remembrance by his much obliged friend, Edward Doubleday." There is no evidence that William Swainson owned the volume, thus Doubleday must have been informed of this fact by the bookseller. A small blue card, bearing a typed quote from Scudder (18SSb) that questions their provenance, was inserted into the volume in 1935. The title page of the volume, dated 1830, is written in John Abbot's distinctive hand (Fig. 1).

Unbeknownst to S. H. Scudder, Abbot also produced two very similar volumes of insect drawings that are now preserved in the Robert W. Woodruff Library (Emory University), and the Kenan Research Center (Atlanta History Center). These volumes, completed in 1827 and 1828, are roughly the same size as the 1830 volume and include the same type of title page (Baker 1959, Rogers 1978). Analogous title pages are also included with two volumes of Abbot's bird drawings, dated 1823 and 1827 (Sewell 1972, Simpson 1984). Abbot obviously produced multiple sets of drawings with similar title pages between 1820 and 1830. These title pages are characterized by large block letters that read "BIRDS of GEORGIA" and "INSECTS of GEORGIA" (Fig. 1). Script subtitles read "Consisting of the most rare kinds Drawn and coloured from Nature by John Abbot." Abbot replaced the word "rare" with "remarkable" for his 1827 insect volume.

Dow (1914) mentioned that T. W. Harris' son, Edward Doubleday Harris, recalled, "as a lad, circa 1851-2, he watched his father devote an afternoon to engrossing a neat title page to a volume of drawings of John Abbot." Dow supposed this was for the 1830 insect volume, but he did not realize that the title page for these drawings is written in Abbot's hand. Instead, Harris undoubtedly created his title page for a group of unbound drawings that he borrowed in 1851 from Abbot's friend, Augustus G. Oemler (letter from Oemler, dated 14 March 1851, Mayr Library). These drawings were purchased from Oemler for the BSNH in 1873 and transferred to Harvard University in 1946. The fate of Harris' title page is unknown, as it is no longer included with Oemler's collection of drawings in the Houghton Library.

The 1830 volume contains 84 drawings. They are rendered in watercolor and graphite on wove paper without watermarks. Sixty drawings depict butterflies and moths, while the remaining 24 are beetles. Many of the illustrations bear penciled numbers and identifications in the hand of T. W. Harris. Additional notations are probably by S. H. Scudder and include references to other Abbot drawings that were owned by the BSNH (e.g. the Oemler set). The figures are arranged into geometric patterns that usually feature one or two large species with two or more smaller species (Figs. 2, 3). They are not placed into taxonomic

Drawing no.	Species depicted	Figures
25	a. Ancyloxyplia numitor (Fabricius)	Dm, Vf
	b. Amblyscirtes aesculapias (Fabricius)	Dm
	c. Papilio glaucus L. (dark form)	Df
	d. Amblyscirtes alternata (Grote & Robinson)	Df
	e. Atrytone arogos (Boisduval & Le Conte)	Df
	f. Anatrytone logan (W. H. Edwards)	Dm
26	a. Papilio glaucus L.	Dm, Vm
	b. <i>Poanes yehl</i> (Skinner)	Dm, Df
27	a. Papilio palamedes Drury	Dm
	b. Polites vibex (Geyer)	Dm, Df
	c. Papilio cresphontes Cramer	Dm
28	a. <i>Papilio troilus</i> L.	Dm, Df
	b. Erynnis juvenalis (Fabricius) or E. horatius (Scudder & Burgess)	Dm, Df
29	a. Celastrina neglecta (W. H. Edwards)	Dm, Df
See Fig. 2	b. Papilio polyxenes Fabricius	Dm, Df
Č.	c. Strymon melinus (Hübner)	Dm, Vm
30	a. Eurytides marcellus (Cramer) (summer form)	Dm
	b. Eurytides marcellus (Cramer) (spring form)	Dm
	c. <i>Hemiargus ceraunus</i> (Fabricius)	Dm, Df
31	a. Battus philenor (Linnaeus)	Dm, Df, Vf
	b. Hermeuptychia sosybius (Fabricius)	Df, Vm
	c. Neonympha areolatus (J. E. Smith)	Df, Vf
32	a. Danaus plexippus (L.)	Dm, Df
See Fig. 3	b. Pyrgus communis (Grote)	Dm, Df
	c. Amblyscirtes vialis (W. H. Edwards)	Df
33	a. ?Oligoria maculata (W. II. Edwards)	Dm
	b. <i>Panoquina ocola</i> (W. H. Edwards)	Df
	c. ?Eupliyes vestris (Boisduval)	Df, Vm
	d. Danaus gilippus (Cramer)	Dm
	e. <i>Erynnis brizo</i> (Boisduval & Le Conte)	Df
	f. ?Erynnis zarucco (Lucas)	Df
34	a. Vanessa atalanta (L.)	Df, Vf
	b. <i>Phyciodes tharos</i> (Drury)	Dm, Df
	c. Erynnis martialis (Scudder)	Df
	d. Limenitis archippus (Cramer)	Dm, Vm

Table 1. Butterfly species depicted in John Abbot's 1830 volume of insect drawings in the Houghton Library, Harvard University. Figures: D=dorsal, V=ventral, m=male, f=female. Figures are listed top to bottom, left to right. Nomenclature follows Opler & Warren (2006).

Drawing no.	Species Depicted	Figures
35	a. Agraulis vanillae (L.)	Dm, Df, Vf
	b. Nastra lherminier (Latreille)	Dm, Df
	c. Lerema accius (J. E. Smith)	Dm, Df
	a. <i>Cercyonis pegala</i> (Fabricius)	Dm, Df
	b. <i>Thorybes pylades</i> (Scudder)	Dm, Vm
	c. <i>Megisto cymela</i> (Cramer)	Df
	d. Hesperia attalus (W. H. Edwards)	Dm
37	a. Asterocampa clyton (Boisduval & Le Conte)	Dm
	b. Ascia monuste (L.)	Dm
	c. Euptoieta claudia (Cramer)	Dm
38	a. Asterocampa celtis (Boisduval & Le Conte)	Dm, Vm
	b. Anatrytone logan (W. H. Edwards)	Df, Vf
	c. <i>Hylephila phyleus</i> (Drury)	Dm, Df
	d. Atrytone arogos (Boisduval & Le Conte)	Df, Vf
	e. <i>Junonia coenia</i> Hübner	Df
39	a. Atlides halesus (Cramer)	Dm, Df
	b. Feniseca tarquinius (Fabricius)	Dm, Df
	c. Calephelis virginiensis (Guérin-Méneville)	Df
40	a. Polygonia interrogationis (Fabricius)	Dm, Vm
	b. Calycopis cecrops (Fabricius)	Dm, Df
	c. Cupido comyntas (Godart)	Dm
41	a. <i>Autochton cellus</i> (Boisduval & Le Conte)	Dm
	b. Achalarus lyciades (Geyer)	Dm
	c. Thorybes bathyllus (J. E. Smith)	Dm
	d. <i>Thorybes</i> sp.	Dm, Df (2)
	e. <i>Erynnis zarucco</i> (Lucas)	Dm
	f. <i>Epargyreus clarus</i> (Cramer)	Dm
	g. Urbanus proteus (L.)	Dm
42	a. Zerene cesonia (Stoll)	Dm, Df, Vm
	b. Satyrium calanus (Hübner)	Dm, Df, Vm
	c. <i>Enodia portlandia</i> (Fabricius)	Df, Vf
43	a. Phoebis sennae (L.)	Dm, Df
	b. Vanessa virginiensis (Drury)	-Dm, Vf
44	a. <i>Eurema daira</i> (Godart)	Dm, Df
	b. Abaeis nicippe (Cramer)	Dm
	c. Abaeis nicippe (Cramer) (yellow form 'flava' Strecker)	Df
	d. Pyrisitia lisa (Boisduval & Le Conte)	Dm, Df

order, but simply grouped into visually pleasing compositions. Abbot employed this same format for his 1827 and 1828 insect volumes.

At least 64 species of butterflies arc portrayed (Table 1), including some that Abbot rarely figured, such as *Panoquina ocola* (W. H. Edwards), *Poanes yehl* (Skinner), *Hemiargus ceraunus* (Fabricius), and *Calephelis virginiensis* (Guérin-Méneville). The single figure of *Amblyscirtes vialis* (W. H. Edwards) (Fig. 3) is his only known representation of this species. Characteristic of Abbot's methods, duplicate figures are shared among the 1827, 1828, and 1830 volumes. As expected, the 1828 and 1830 volumes are most alike. The 1828 volume portrays 54 of the same butterfly species as the 1830 volume, and three compositions are exact duplicates. The 1827 volume contains only 43 of the same butterfly species as the 1830 volume, and no compositions are duplicated.

Abbot was 79 years old in 1830. The insect drawings that he prepared during this period are generally lcss precise than his earlier watercolors. Some of the figures are feebly rendered and difficult to identify, but this relaxed style is not unusual among Abbot's insect illustrations (Calhoun 2007). It has recently been shown that the quality of his artwork varied considerably during the six decades that he lived in America (e.g. Rogers-Price 1983, Simpson 1984, Calhoun 2006, 2007). Abbot is not known to have produced any more insect drawings of this type after 1830. He seems to have ceased working about five years later at the age of 84.

The 1830 insect watercolors were created by a remarkable artist in the twilight of his career. They journeyed from America to England, then back again. In the process they passed through the hands of three legendary nineteenth century naturalists, bridging the scientific divide between the Old and New Worlds. No longer can these illustrations be regarded as "scarcely the least value."

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LITERATURE CITED

- ANONYMOUS. 1860. January 4, 1860. Report of the Library. Proc. Boston Soc. Nat. His. 7:210–211.
- BAKER, W. B. 1959. John Abbot's insects of Ceorgia. Emory Univ. Qtly. 15:146–152.

- CALHOUN, J. V. 2006. A glimpse into a "flora et entomologia": The Natural History of the Rarer Lepidopterous Insects of Georgia by J. E. Smith and J. Abbot (1797). J. Lepid. Soc. 60:1–37.
- ______. 2007. John Abbot's butterfly drawings for William 8wainson, including general comments about Abbot's artistic methods and written observations. J. Lepid. Soc. 61:1–20.
- Dow, R. P. 1914. John Abbot, of Georgia. J. New York Entomol. Soc. 22:65–71.
- DRAKE, 8. A. 15S0. History of Middlesex County, Massachusetts, containing carefully prepared histories of every eity and town in the county, by well-known writers; a general history of the county, from the earliest to the present time. Vol. 2. Estes & Lauriat, Boston. 572 pp.
- FAXON, W. 1896. John Abbot's drawings of the birds of Georgia. Auk 13:204–215.
- HIGGINSON, T. W. 1869. Memoir of Thaddeus William Harris. Occ. Pap. Boston Soc. Nat. His, 1:xi-xlvii.
- _____. 1906. Part of a man's life. Houghton, Mifflin, & Co., Boston. 311 pp.
- KIRBY, W. F. 1SSS. John Abbot, the aurelian. Can . Entomol. 20:230–232 (reprinted in Nineteenth Ann. Rpt. Entomol. 8oc. Ontario 188S:50–51).
- NATUSCH, 8. & G. SWAINSON. 1987. William Swainson of Fern Grove F.R.8, F.L.8, &c.: anatomy of a nineteenth-century naturalist. S. Natusch, Wellington, New Zealand. 184 pp.
- OPLER, P. A. & A. D. WARREN. 2006. Lepidoptera of North America. 4. Scientific names list for butterfly species of North America, north of Mexico. Contrib. C. P. Gillette Mus. of Arth. Biodiv., Colorado State Univ., Ft. Collins, Colorado. S3 pp.
- PARKINSON, P. C.. 1984. William Swainson 1789–1855: relics in the antipodes, pp. 49–63. In Hoare, M. E. & L. G. Bell (eds.). In search of New Zealand's scientific heritage. Royal Soc. New Zealand Bull. 21.
- ROCERS, V. 1975. John Abbot, Samuel Wright and a volume of Abbot's watercolors. J. Atlanta Hist. Soc. 22:29–44.
- ROCERS-PRICE, V. 1983. John Abbot in Georgia: the vision of a naturalist artist (1751–ca.1S40). Madison-Morgan Cult. Ctr., Madison, Georgia. 149 pp.
- SCUDDER, S. II. (ed.). 1869. Entomological correspondence of Thaddeus William Harris, M.D. Boston Soc. Nat. His., Boston, Massachusetts. 375 pp., 4 pl.
- _____. 18S8a. John Abbot, the aurelian. Can. Entomol. 20:150–154 (reprinted in Nineteenth Ann. Rpt. Entomol. Soc. Ontario 18SS:4S–50).
- _____. 1SS8b. Note by Mr. Scudder, pg. 232. In Kirby, W. F. John Abbot, the aurelian. Can . Entomol. 20:230–232.
- SEWELL, C. 1972. John Abbot's seventh bird book now owned by local collector. Savannah News-Press. 8unday Magazine. Oct. 21, 1973. Sect. F:1.
- SIMFSON, M. B., JR. 1984. The artist-naturalist John Abbot (1751–ca. 1840): contributions to the ornithology of the southeastern United States. North Carolina Hist. Rev. 61:347–390.
- SMITH, J. E. & J. ABBOT. 1797. The natural history of the rarer lepidopterous insects of Ceorgia, including their systematic characters, the particulars of their several metamorphoses, and the plants on which they feed, collected from the observations of Mr. John Abbot, many years resident in that country. 2 vols. J. Edwards, Cadell & Davies, and J. White, London. 214 pp., 104 pl.

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